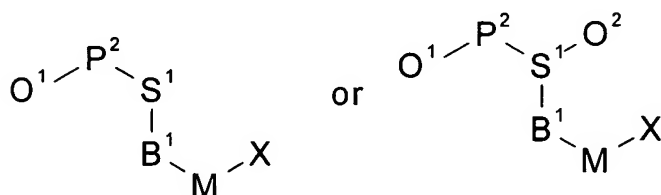


AMENDMENT TO THE CLAIMS

Please amend the claims as follows:

1-24. (canceled)

25. (Original) A compound that has formula (II):



or a derivative thereof, wherein:

O¹ and O² are each independently an oligonucleotide or an analog thereof;

P² is a phosphodiester group;

S¹ is a ribose, a deoxyribose or a dideoxyribose;

B¹ is a nucleobase;

X is a protected or unprotected hydrazino group, a protected or unprotected oxyamino group, or a carbonyl derivative; and

M is a divalent group having any combination of the following groups, which can be combined in any order: arylene, heteroarylene, cycloalkylene, C(R¹)₂, -C(R¹)=C(R¹)-, >C=C(R²)(R³), >C(R²)(R³), -C≡C-, O, S(A)_a, P(D)_b(R¹), P(D)_b(ER¹), N(R¹), >N⁺(R²)(R³) and C(E); where a is 0, 1 or 2; b is 0, 1, 2 or 3; A is O or NR¹; D is S or O; and E is S, O or NR¹;

each R¹ is a monovalent group independently selected from hydrogen and M¹-R⁴;

each M¹ is a divalent group independently having any combination of the following groups, which groups can be combined in any order: a direct link, arylene, heteroarylene, cycloalkylene, C(R⁵)₂, -C(R⁵)=C(R⁵)-, >C=C(R²)(R³), >C(R²)(R³), -C≡C-, O, S(A)_a, P(D)_b(R⁵), P(D)_b(ER⁵), N(R⁵),

$N(COR^5)$, $>N^+(R^2)(R^3)$ and $C(E)$; where a is 0, 1 or 2; b is 0, 1, 2 or 3; A is O or NR^5 ; D is S or O; and E is S, O or NR^5 ;

R^4 and R^5 are each independently selected from the group consisting of hydrogen, halo, pseudohalo, cyano, azido, nitro, $SiR^6R^7R^8$, alkyl, alkenyl, alkynyl, haloalkyl, haloalkoxy, aryl, aralkyl, aralkenyl, aralkynyl, heteroaryl, heteroaralkyl, heteroaralkenyl, heteroaralkynyl, heterocyclyl, heterocyclylalkyl, heterocyclylalkenyl, heterocyclylalkynyl, hydroxy, alkoxy, aryloxy, aralkoxy, heteroaralkoxy and NR^9R^{10} ;

R^9 and R^{10} are each independently selected from hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, aryl, aralkyl, heteroaryl, heteroaralkyl and heterocyclyl;

R^2 and R^3 are selected from (i) or (ii) as follows:

(i) R^2 and R^3 are independently selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, aryl and heteroaryl; or

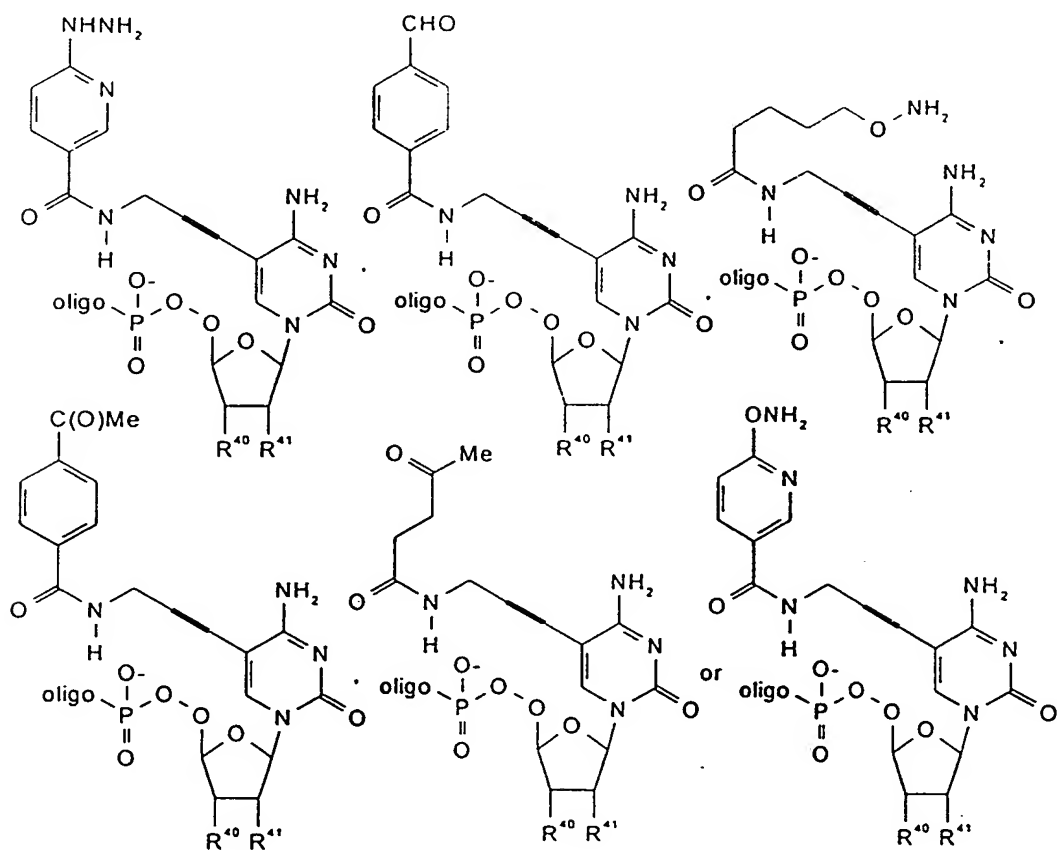
(ii) R^2 and R^3 together form alkylene, alkenylene or cycloalkylene;

R^6 , R^7 and R^8 are each independently a monovalent group selected from hydrogen, alkyl, alkenyl, alkynyl, haloalkyl, haloalkoxy, aryl, aralkyl, aralkenyl, aralkynyl, heteroaryl, heteroaralkyl, heteroaralkenyl, heteroaralkynyl, heterocyclyl, heterocyclylalkyl, heterocyclylalkenyl, heterocyclylalkynyl, hydroxy, alkoxy, aryloxy, aralkoxy, heteroaralkoxy and NR^9R^{10} ; and

R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , R^9 and R^{10} are unsubstituted or substituted with one or more substituents each independently selected from Z, wherein Z is selected from alkyl, alkenyl, alkynyl, aryl, cycloalkyl, cycloalkenyl, hydroxy, $S(O)_hR^{20}$, $NR^{20}R^{21}$, $COOR^{20}$, COR^{20} , $CONR^{20}R^{21}$, $OC(O)NR^{20}R^{21}$, $N(R^{20})C(O)R^{21}$, alkoxy, aryloxy, heteroaryl, heterocyclyl, heteroaryloxy, heterocycliloxy, aralkyl, aralkenyl, aralkynyl, heteroaralkyl, heteroaralkenyl, heteroaralkynyl, aralkoxy, heteroaralkoxy, alkoxycarbonyl, carbamoyl, thiocarbamoyl, alkoxycarbonyl, carboxyaryl,

halo, pseudohalo, haloalkyl and carboxamido; h is 0, 1 or 2; and R²⁰ and R²¹ are each independently selected from the group consisting of hydrogen, halo, pseudohalo, cyano, azido, nitro, trialkylsilyl, dialkylarylsilyl, alkyl diarylsilyl, triarylsilyl, alkyl, alkenyl, alkynyl, haloalkyl, haloalkoxy, aryl, aralkyl, aralkenyl, aralkynyl, heteroaryl, heteroaralkyl, heteroaralkenyl, heteroaralkynyl, heterocyclyl, heterocyclylalkyl, heterocyclylalkenyl, heterocyclylalkynyl, hydroxy, alkoxy, aryloxy, aralkoxy, heteroaralkoxy, amino, amido, alkylamino, dialkylamino, alkylaryl amino, diarylamino and arylamino.

26. (Original) The compound of claim 25 that has any of formula:



wherein R⁴⁰ is selected from the group consisting of an oligonucleotide, H and OH; and R⁴¹ is selected from the group consisting of H and OH.

27. (Original) The compound of claim 25 that is immobilized on a surface.

28. (Original) The compound of claim 25 that is conjugated to a second component.

29. (Original) A method for immobilizing oligonucleotides on a solid surface, comprising the step of:

reacting a compound of claim 25 or a plurality of said compounds with a solid surface; wherein:

if the compound has a hydrazino or oxyamino group, the solid surface has a carbonyl group; or

if the compound has a carbonyl group, the solid surface has a hydrazino or oxyamino group.

30. (Original) An immobilized oligonucleotide prepared by the method of claim 29.

31. (Original) A method for formation of an oligonucleotide conjugate, comprising the step of:

reacting the compound of claim 25 with a second component to form an oligonucleotide conjugate;

wherein the compound and the second component comprise complementary groups.

32. (Original) An oligonucleotide conjugate prepared by the method of claim 31.

33. (Original) The conjugate of claim 28, wherein the second component is selected from the group consisting of a fluorescein, a rhodamine and a cyanine dye.

34-44. (Canceled)

45. (Original) A method of preparation of a hydrazino, oxyamino or carbonyl modified nucleoside triphosphate, comprising the steps of: (i) derivatizing a carboxylic acid selected from an ω -carbonyl, an ω -protected hydrazino, and an ω -protected oxyamino substituted carboxylic acid as the corresponding active ester;

(ii) reacting the resulting active ester with an amino substituted nucleoside triphosphate; and

(iii) deprotecting the hydrazino or oxyamino group, if present.

46. (Canceled).